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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/560,213	04/25/2006	Kwok Ying Joseph Chow	7439-75539/PJP	2970
<div>7590 04/20/2007 Peter J Phillips Cooper & Dunham 1185 Avenue of the Americas New York, NY 10036</div>			<div>EXAMINER ALEMU, EPHREM</div>	
			<div>ART UNIT 2821</div>	<div>PAPER NUMBER</div>
SHORTENED STATUTORY PERIOD OF RESPONSE			MAIL DATE	DELIVERY MODE
3 MONTHS			04/20/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/560,213

Applicant(s)

CHOW ET AL.

Examiner

Ephrem Alemu

Art Unit

2821

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 4/25/06.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 December 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. Figure 1 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

2. Applicant is reminded of the proper content of an abstract of the disclosure.

A patent abstract is a concise statement of the technical disclosure of the patent and should include that which is new in the art to which the invention pertains. If the patent is of a basic nature, the entire technical disclosure may be new in the art, and the abstract should be directed to the entire disclosure. If the patent is in the nature of an improvement in an old apparatus, process, product, or composition, the abstract should include the technical disclosure of the improvement. In certain patents, particularly those for compounds and compositions, wherein the process for making and/or the use thereof are not obvious, the abstract should set forth a process for making and/or use thereof. If the new technical disclosure involves modifications or alternatives, the abstract should mention by way of example the preferred modification or alternative.

The abstract should not refer to purported merits or speculative applications of the invention and should not compare the invention with the prior art.

Where applicable, the abstract should include the following:

- (1) if a machine or apparatus, its organization and operation;
- (2) if an article, its method of making;
- (3) if a chemical compound, its identity and use;
- (4) if a mixture, its ingredients;
- (5) if a process, the steps.

Extensive mechanical and design details of apparatus should not be given.

3. The abstract of the disclosure is objected to because of the following:

(i) the abstract, in lines 1 and 2, refers to the purported merits of the application and compares the invention with the prior art. See MPEP § 608.01(b); and

(ii) in lines 4, 6, 8 and 10, respectively, “triggering” should be replaced with --triggering-- to correct minor typographical error. Correction is required.

4. The specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

5. The disclosure is objected to because of the following informalities: in pages 1, 2 and 3, the turn of phrase “triggering” should be replaced with --triggering-- throughout pages 1-3 to correct minor typographical error. Appropriate correction is required.

Claim Objections

6. Claims objected to because of the following informalities:

(i) In claim 1, line 1, “A driving” should be replaced with --A flash driving-- to indicate the driving is flash driving and eliminate antecedent basis for the dependent claims 2-7; and “IC” should be replaced with --integrated circuit (IC)-- to clearly indicate the abbreviated term “IC” refers back to the “integrated circuit” throughout claim 1 and dependent claims of claim 1;

lines 2-3, “the said switch” should be replaced with --the switch-- or --said switch-- to eliminate redundancy;

line 3, “the triggering pin” should be replaced with --a triggering pin-- to eliminate lack of antecedent basis and correct minor typographical error; and

Art Unit: 2821

lines 3 & x, "triggering pin TG" should be replaced with --triggering pin (TG)-- because "TG" is the abbreviated term used to indicate "triggering pin" to correct minor typographical error. Appropriate correction is required.

(ii) In claims 2, 3, 4 and 5, lines 1, respectively, "the said" should be replaced with --the-- or --said-- to eliminate redundancy. Appropriate correction is required.

(iii) In claim 3, line X, "at the free end" should be replaced with --and at the free end,-- to eliminate any misinterpretation and/or confusion. Appropriate correction is required.

(iv) In claim 4, line X, "an elastic one, spring (203) are" should be replaced with --an elastic one, including a spring (203), is-- and/or corrected appropriately, to eliminate any misinterpretation and/or confusion. Appropriate correction is required.

(iv) In claim 6, "two said power supplies are provided: the first power supply (104) and the second power supply (V_1);" should be replaced with --said power supply comprises a first power supply (V_{DD}) and a second power supply (V_{DD-1}) and said flash members (100a, 100b, 100c, 100d, 100e) comprises low voltage flash members (100a, 100b, 100c, 100d) and high voltage flash member (100e);-- and/or corrected appropriately to eliminate lack of antecedent basis for "two said power supplies and low voltage and high voltage flash members". Appropriate correction is required.

(v) In claim 7, line 2, "the flash member of" should be replaced with --the at least one flash member-- to eliminate lack of antecedent basis. Appropriate correction is required.

Claim Rejections - 35 USC § 112

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Art Unit: 2821

8. Claim 3 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Re claim 3, the recitation “is connected to the external circuit” in line 3 and “are connected to the external circuit” in lines 5 is indefinite. Is the “external circuit” recited in line 3 is the same or different than the “external circuit” recited in line 5? How is the “external circuit” related with the other elements of the claimed flash driving apparatus recited in claim 1? Furthermore, the “external circuit” lack antecedent basis. Appropriate correction is required.

Claim Rejections - 35 USC § 102

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

10. Claims 1-7 are rejected under 35 U.S.C. 102(e) as being anticipated by Leung et al. (US Pub. 2004/0251837).

Re claim 1, Leung discloses a flash driving apparatus including a power supply (V_{DD}), a controlling integrated circuit (IC) (i.e., M1600), flash members (62a-62f), and a switch module (10) is characterized by that the switch (i.e., switching means 10) connected with a triggering pin of the controlling IC (i.e., M1600) is provided with two or more contacts (A, B) (Fig. 1; paragraphs [0032] to [0033]), and

a condition recognizer (i.e., sequence detecting and actuating means 20) that will switch into conduction or cutoff according to a given condition connected between the switch (i.e., switching means 10) connected with a triggering pin of the controlling IC (i.e., M1600) (Fig. 1; paragraphs [0032] to [0033]).

Re claim 2, Leung further discloses the condition recognizer (i.e., sequence detecting and actuating means 20) includes a NAND gate (28), the output of gate (28) is connected to the triggering pin of the controlling IC (i.e., M1600), the pin of the comparator end (21) of gate (23) is connected to a contact (B) of the switch (i.e., switching means 10), and is connected to ground or to the negative electrode of the power supply (V_{DD}), another pin (22) of the comparator end of the NAND gate (23) is connected to another contact (A) through a capacitor (25), two ends of the capacitor (25) are grounded or connected to the negative electrode of the power supply (V_{DD}) (Fig. 1; paragraphs [0032] to [0033]).

Re claim 3, as best understood, Leung further discloses the switch (i.e., switching means 10) being an elastic one, including a spring (i.e., movable contact member 125), one end (123) of the spring (i.e., movable contact member 125) being fixed on a conducting saddle (see Fig. 2b) which is connected to at least one end of an external circuit (Figs. 1, 2b; paragraphs [0033] to [0035]); and

at the free end of spring (i.e., movable contact member 125) are fixed two or more conducting slabs (i.e., contact terminals 122, 124) which constitute the contacts of the switch (i.e., switching means 10), the conducting slabs (i.e., contact terminals 122, 124) are connected to another ends of the external circuit (Figs. 1, 2b; paragraphs [0033] to [0035]).

Re claim 4, Leung further discloses the switch (i.e., switching means 10) being an elastic one, including a spring (i.e., movable contact member 115), being sleeved with two or more conducting rings (112, 114), which are laid around spring (115) and constitute two or more contacts of switch (i.e., switching means 10) and are connected to external circuit (Figs. 1, 2a; paragraphs [0033] to [0034]).

Re claim 5, Leung further discloses the power supply is connected with a charging circuit (Fig. 3; paragraph [0036]).

Re claim 6, Leung further discloses the power supply comprises a first power supply (V_{DD}) and a second power supply (V_{DD-1}) and the flash members comprises low voltage flash members (i.e., 62a-d) and high voltage flash member (i.e., 62e or 62 f): the first power supply (V_{DD}) and the second power supply (V_{DD-1}); the first power supply (V_{DD}) is connected through the controlling IC (i.e., M1600) to the low voltage flash members (i.e., 62a-d); the high voltage flash member (i.e., 62e or 62 f) is connected to the collector of triode (72) whose emitter is connected to second power supply (V_{DD-1}), whose base is connected to the first power supply (V_{DD}) through a resistance-capacitance resistor (73), thus the flash members are provided with high voltage (FIG. 7; paragraph [0045]).

Re claim 7, Leung further discloses a boost circuit is added at the place of the at least one flash member (i.e., 62f) (Fig. 7a; paragraph [0046]).

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Horchler et al. (US 2004/0172856); Wong (US 7,071,828) ; Yeung (US 6,776,498); Wong (US 6,682,202); and Garner teach similar inventive subject matter.

Art Unit: 2821

Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ephrem Alemu whose telephone number is (571) 272-1818. The examiner can normally be reached on M-F 9:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Douglas W Owens can be reached on (571) 272-1662. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



TUYET VO
PRIMARY EXAMINER

EA
4-16-07